
Appendix for the Report

Dosimetric Assessment of the Bang & Olufson BeoCom4 Handset (FCC ID: BV5BEOCOM4HS)

According to the FCC Requirements

SAR Distribution Plots

June 28, 2006
IMST GmbH
Carl-Friedrich-Gauß-Str. 2
D-47475 Kamp-Lintfort

Customer
Bang & Olufson a/s
Postbox 40
DK-7600 Struer

The test results only relate to the items tested.
This report shall not be reproduced except in full without the written
approval of the testing laboratory.

Table of Contents

1	SAR DISTRIBUTION PLOTS, HEAD MEASUREMENTS.....	3
2	SAR DISTRIBUTION PLOTS, BODY WORN	7
3	SAR Z-AXIS SCANS (VALIDATION)	8
4	SAR Z-AXIS SCANS (MEASUREMENTS).....	9

1 SAR Distribution Plots, Head Measurements

Test Laboratory: Imst GmbH; File Name: [ComydIm_1.da4](#)

DUT: B&O Handset; Type: BeoCom 4;

Program Name: Cheek Left

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 41.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.87, 4.87, 4.87); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek Left/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.026 mW/g

Cheek Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.75 V/m; Power Drift = -0.191 dB

Peak SAR (extrapolated) = 0.054 W/kg

SAR(1 g) = 0.0279 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 0.033 mW/g

Cheek Left/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 3.75 V/m; Power Drift = -0.191 dB

Peak SAR (extrapolated) = 0.026 W/kg

SAR(1 g) = 0.020 mW/g; SAR(10 g) = 0.013 mW/g

Maximum value of SAR (measured) = 0.022 mW/g

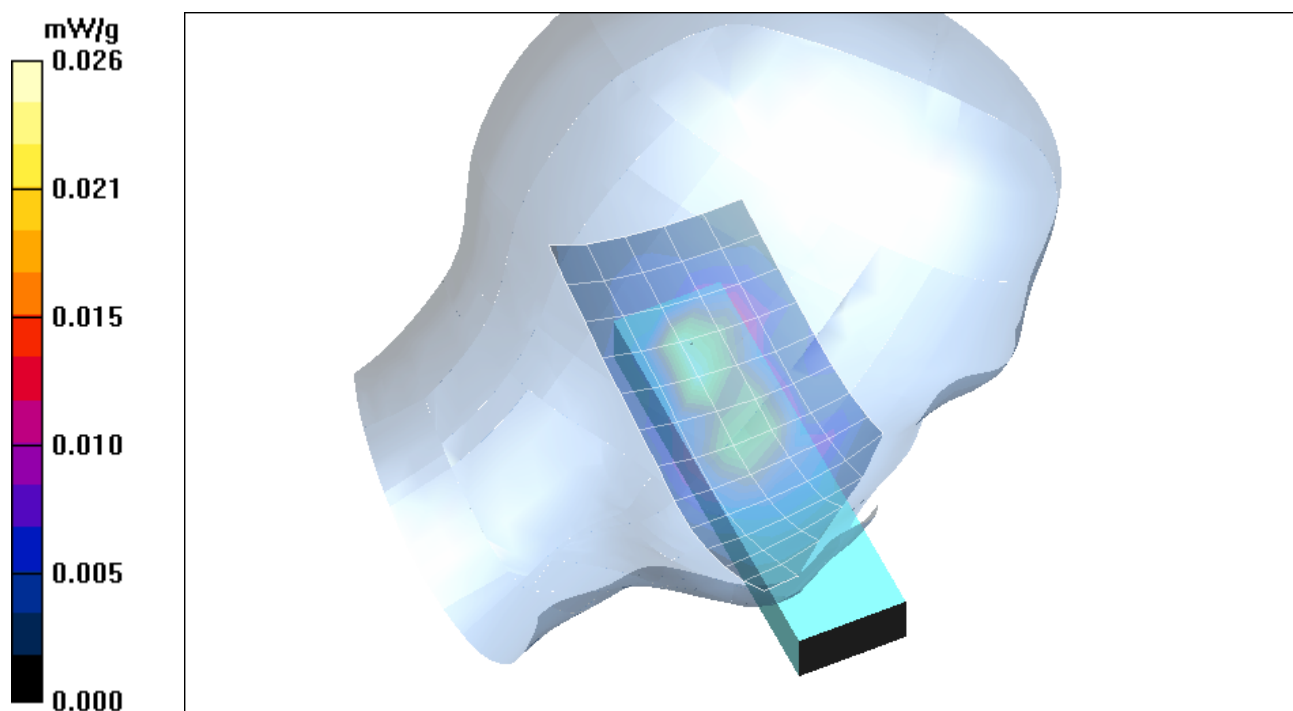


Fig. 1: SAR distribution for DECT US, channel 2, cheek position, left side of head (June 27, 2006; Ambient Temperature: 22.0°C; Liquid Temperature: 21.5°C).

Test Laboratory: Imst GmbH; **File Name:** [Comydlm_2.da4](#)

DUT: B&O Handset; **Type:** BeoCom 4;

Program Name: Tilted Left

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 41.1$; $\rho = 1000$ kg/m³

Phantom section: Left Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.87, 4.87, 4.87); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilted Left/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.010 mW/g

Tilted Left/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.60 V/m; Power Drift = 0.044 dB

Peak SAR (extrapolated) = 0.016 W/kg

SAR(1 g) = 0.0097 mW/g; SAR(10 g) = 0.005 mW/g

Maximum value of SAR (measured) = 0.011 mW/g

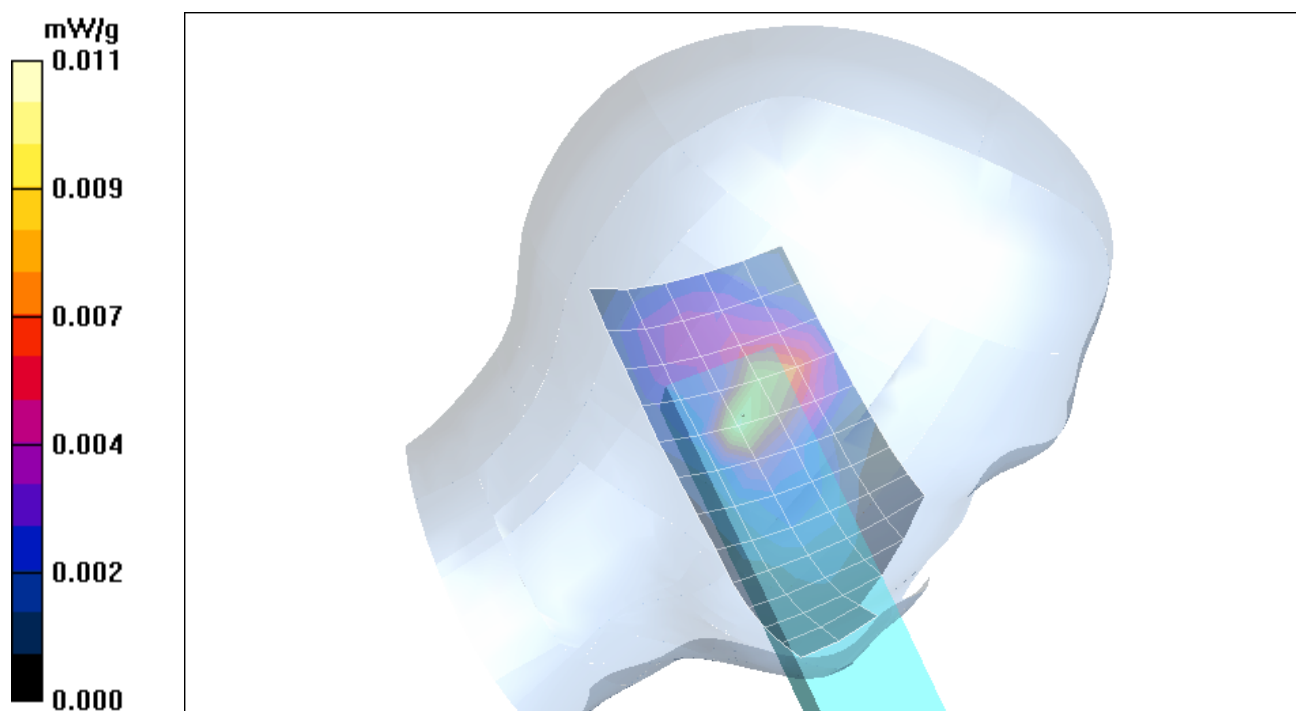


Fig. 2: SAR distribution for DECT US, channel 2, tilted position, left side of head (June 27, 2006; Ambient Temperature: 22.1°C; Liquid Temperature: 21.5°C).

Test Laboratory: Imst GmbH; **File Name:** [Comydrm_1.da4](#)

DUT: B&O Handset; **Type:** BeoCom 4;

Program Name: Cheek Right

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 41.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.87, 4.87, 4.87); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Cheek Right/Area Scan (6x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.030 mW/g

Cheek Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 4.22 V/m; Power Drift = 0.077 dB

Peak SAR (extrapolated) = 0.071 W/kg

SAR(1 g) = 0.0376 mW/g; SAR(10 g) = 0.016 mW/g

Maximum value of SAR (measured) = 0.042 mW/g

Cheek Right/Zoom Scan (7x7x7)/Cube 1: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 4.22 V/m; Power Drift = 0.077 dB

Peak SAR (extrapolated) = 0.023 W/kg

SAR(1 g) = 0.017 mW/g; SAR(10 g) = 0.011 mW/g

Maximum value of SAR (measured) = 0.019 mW/g

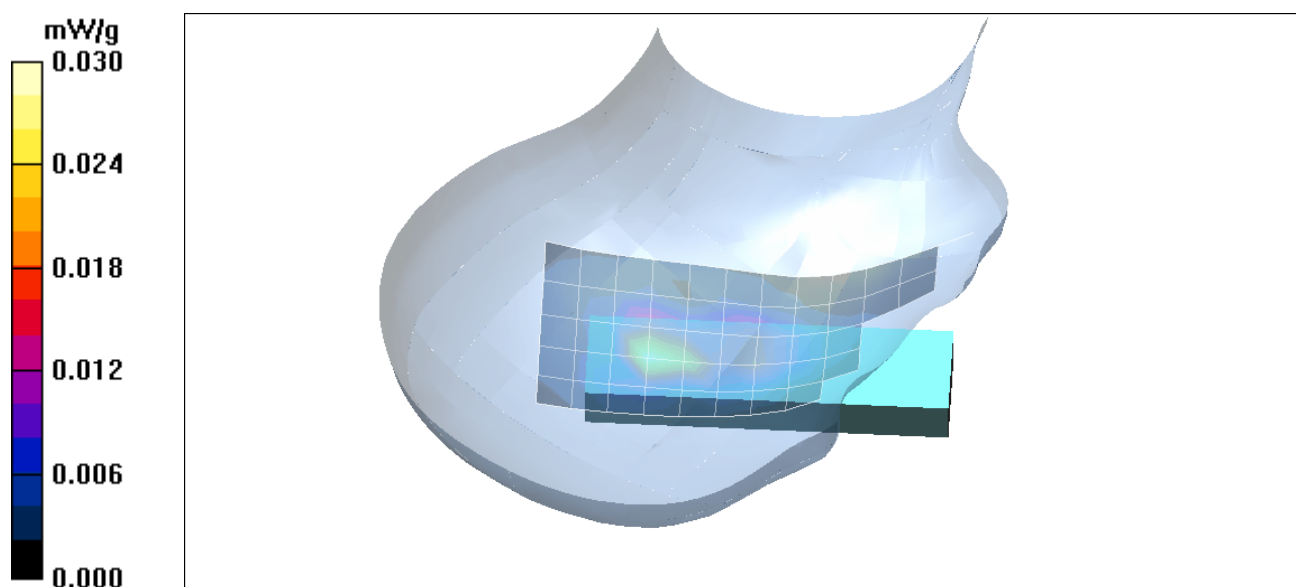


Fig. 3: SAR distribution for DECT US, channel 2, cheek position, right side of head (June 27, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.5° C).

Test Laboratory: Imst GmbH; **File Name:** [comydrm_2.da4](#)

DUT: B&O Handset; **Type:** BeoCom 4;

Program Name: Tilted Right

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.46$ mho/m; $\epsilon_r = 41.1$; $\rho = 1000$ kg/m³

Phantom section: Right Section

DASY4 Configuration:

- Probe: ET3DV6R - SN1669; ConvF(4.87, 4.87, 4.87); Calibrated: 15.02.2006
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn631; Calibrated: 07.07.2005
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Tilted Right/Area Scan (6x13x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.011 mW/g

Tilted Right/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.75 V/m; Power Drift = 0.193 dB

Peak SAR (extrapolated) = 0.020 W/kg

SAR(1 g) = 0.0117 mW/g; SAR(10 g) = 0.00587 mW/g

Maximum value of SAR (measured) = 0.013 mW/g

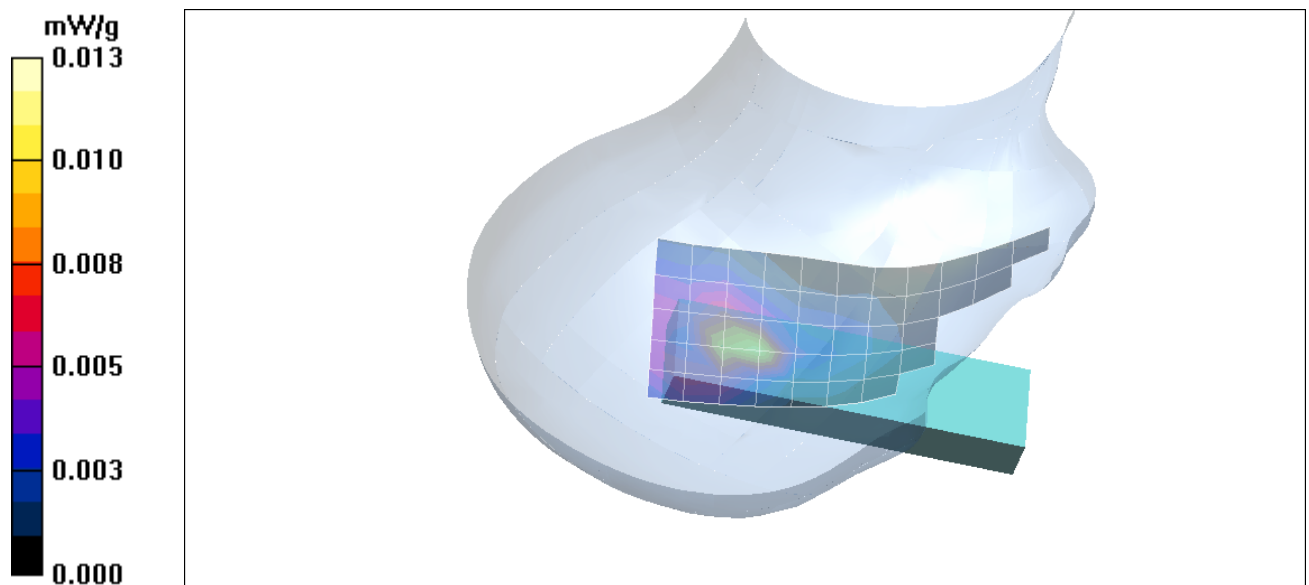


Fig. 4: SAR distribution for DECT US, channel 2, tilted position, right side of head (June 27, 2006; Ambient Temperature: 22.2 °C; Liquid Temperature : 21.5° C)

2 SAR Distribution Plots, Body worn

Test Laboratory: Imst GmbH; File Name: [Comydhm_2.da4](#)

DUT: B&O Handset; Type: BeoCom 4;

Program Name: Body Worn

Communication System: DECT US; Frequency: 1924.99 MHz; Duty Cycle: 1:24

Medium parameters used (extrapolated): $f = 1924.99$ MHz; $\sigma = 1.57$ mho/m; $\epsilon_r = 51.9$; $\rho = 1000$ kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: EX3DV4 - SN3536; ConvF(7.67, 7.67, 7.67); Calibrated: 23.09.2005
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn335; Calibrated: 09.03.2006
- Phantom: SAM Glycol 1340; Type: QD 000 P40 CB; Serial: TP-1340
- Measurement SW: DASY4, V4.7 Build 44; Postprocessing SW: SEMCAD, V1.8 Build 171

Body Worn/Area Scan (6x13x1): Measurement grid: $dx=15$ mm, $dy=15$ mm

Maximum value of SAR (measured) = 0.031 mW/g

Body Worn/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5$ mm, $dy=5$ mm, $dz=5$ mm

Reference Value = 3.45 V/m; Power Drift = 0.131 dB

Peak SAR (extrapolated) = 0.050 W/kg

SAR(1 g) = 0.0295 mW/g; SAR(10 g) = 0.015 mW/g

Maximum value of SAR (measured) = 0.033 mW/g

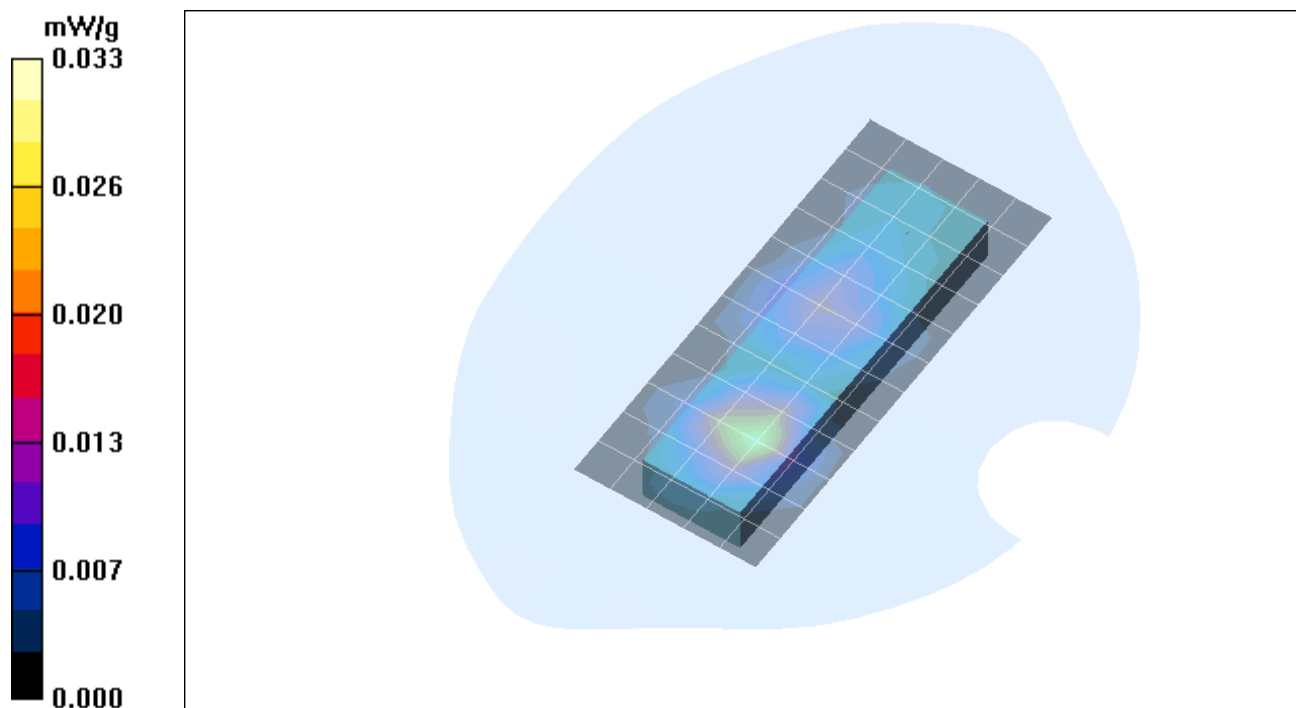


Fig. 5: SAR distribution for DECT US, channel 2, body worn configuration, display towards the ground, with headset and belt clip (June 26, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.2° C).

3 SAR z-axis scans (Validation)

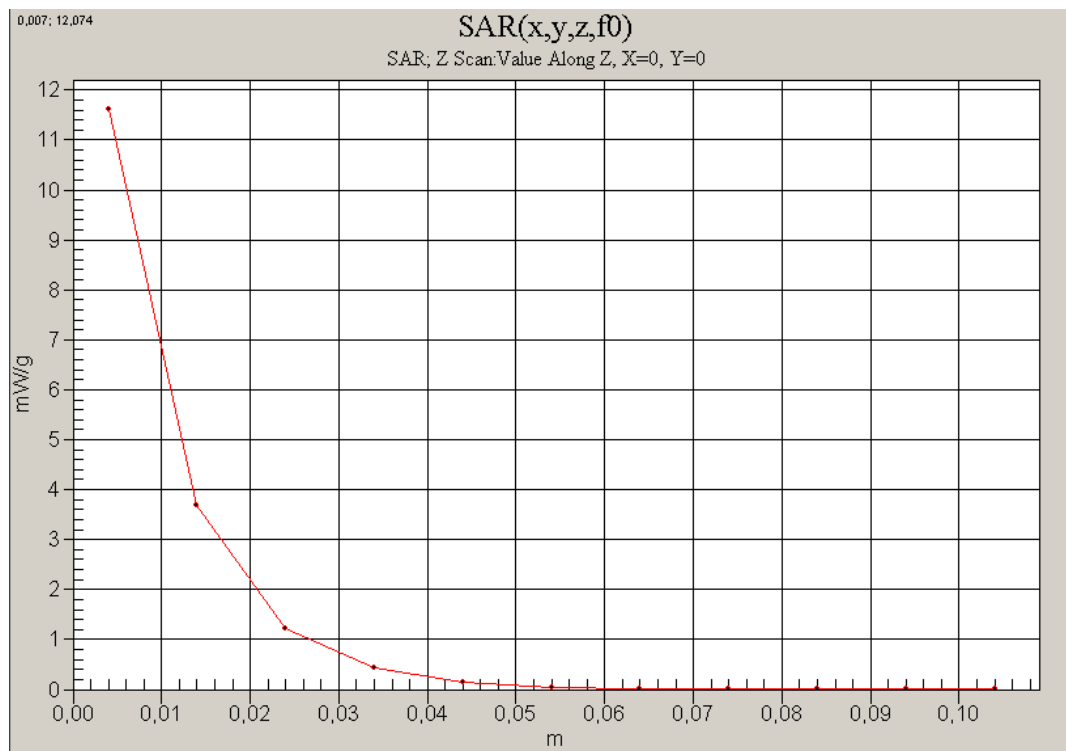


Fig. 6: SAR versus liquid depth, 1900 MHz, head (June 27, 2006; Ambient Temperature: 22.0° C; Liquid Temperature : 21.4° C).

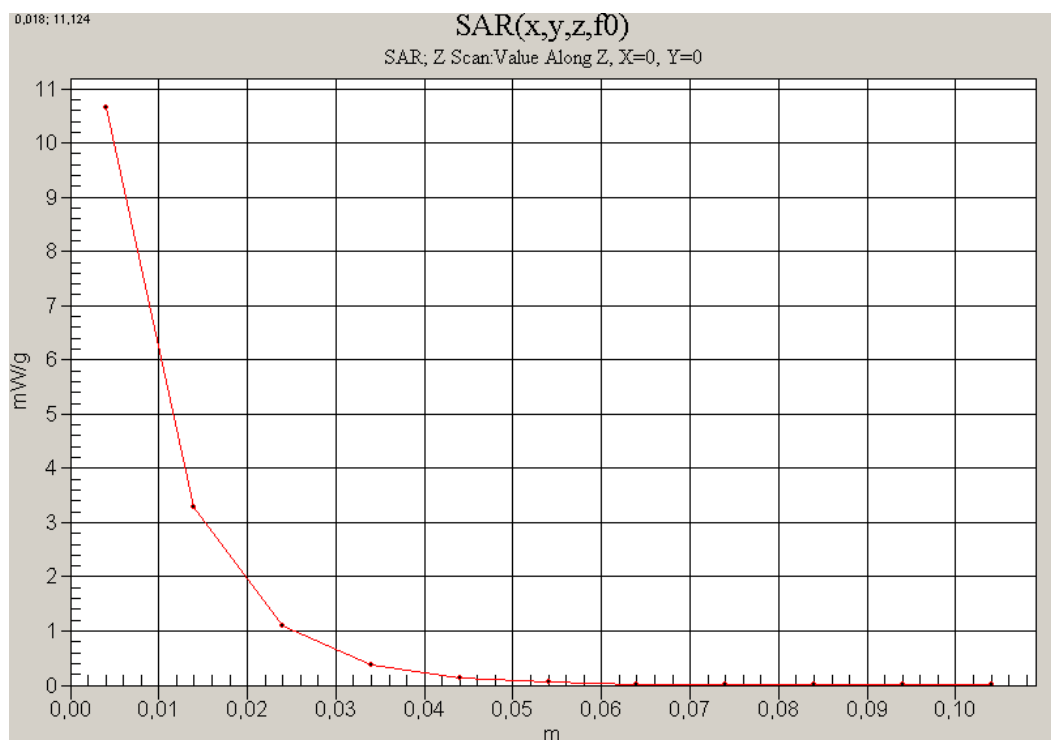


Fig. 7: SAR versus liquid depth, 1900 MHz, body (June 26, 2006; Ambient Temperature: 22.0° C; Liquid Temperature : 21.1° C).

4 SAR z-axis scans (Measurements)

The following pictures show the plots of SAR versus liquid depth for the worst case values.

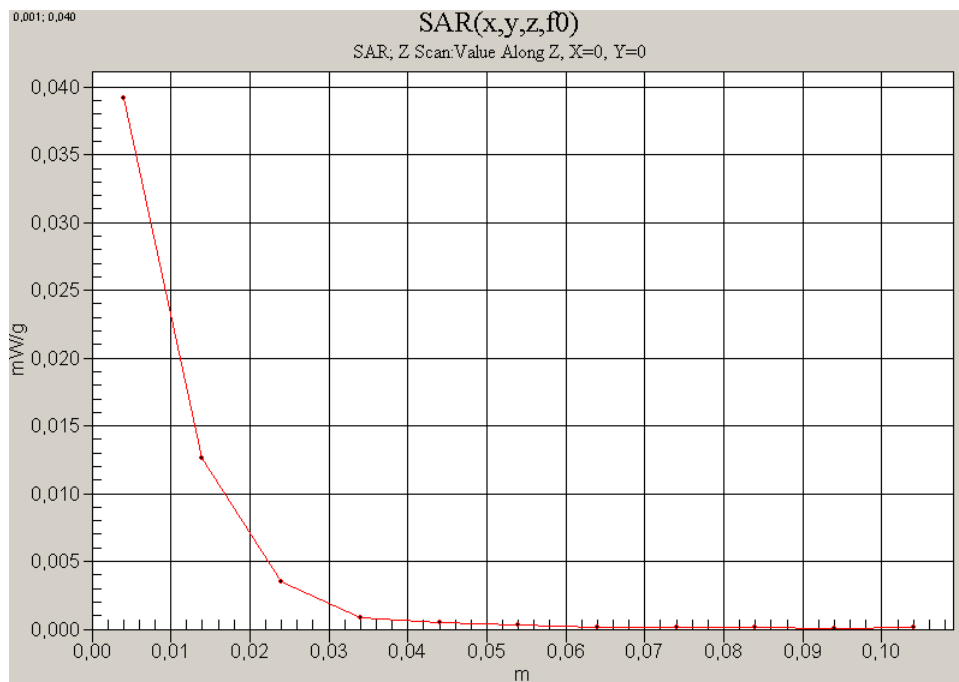


Fig. 8: SAR versus liquid depth, head: DECT US, channel 2, cheek position, right side of head (June 27, 2006; Ambient Temperature: 22.1° C; Liquid Temperature : 21.5° C).

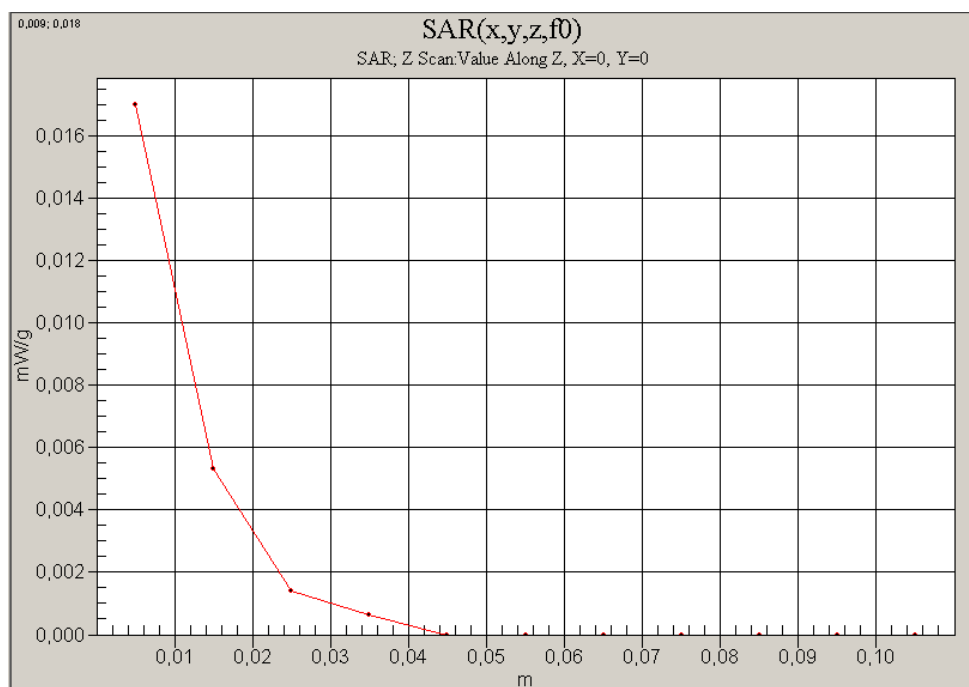


Fig. 9: SAR versus liquid depth, body: DECT US 1900, channel 2, headset and belt clip (June 26, 2006; Ambient Temperature: 22.1° C; Liquid Temperature: 21.2° C).